

REMARKS

Claims 1-4, 101, and 150-157 are currently pending in the subject application and are presently under consideration. Claims 1, 3 and 101 have been amended as shown on pp. 2-27 of the Reply.

The Examiner is thanked for courtesies extended during an interview conducted on April 18, 2008. The main focus of the interview was on the rejections under 35 U.S.C. §§ 102(b) and 103. While the presented matter generally related to all the claims, the crux was upon independent claims 1 and 101. In particular, reference A, Linden *et al.* (US 6,266,649), was discussed in the interview. No agreements were reached. The interview was conducted with Ronald Krosky (Reg. No. 58,564), Brian Polis, and Examiner Robertson.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection of Claims 1-4

Claims 1-4 are objected to because of the following informalities: claim 1 at “wherein the filtering component additionally employing . . .” should read “additionally employs[[ing]]”. Claim 1 has been amended to cure the deficiencies raised by the Examiner.

II. Rejection of Claims 1-4 Under 35 U.S.C §112

Claims 1-4 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended to correct this deficiency. Accordingly, withdrawal of this rejection is respectfully requested.

III. Rejection of Claims 1-4 Under 35 U.S.C. §101

Claims 1-4 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. It is respectfully submitted that this rejection is improper for at least the following reasons. The subject claims are directed toward statutory subject matter. As the Court of Appeals for the Federal Circuit stated in *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005):

Title 35, section 101, explains that an invention includes "any new and useful process, machine, manufacture or composition of matter." ... Without question, *software code alone qualifies as an invention eligible for patenting under these categories*, at least as processes. *Id.* at 1338 (emphasis added).

The Federal Circuit in *Eolas Techs., Inc. v. Microsoft Corp.* established that software code alone is statutory subject matter. Independent claim 1 recites a *system embodied on a computer readable medium* that uses hardware, software, or a combination of the two to apply collaborative filtering techniques to an item set. A system by itself is statutory subject matter. By the standards set forth in the above decision, a system embodied on a computer readable medium in the form of software, hardware, or the combination of both clearly falls within the categories of statutory subject matter.

In view of the above, it is readily apparent that the claimed invention as recited in independent claim 1 (and associated dependent claims 2-4) reduce to a practical application that produces a useful, concrete, tangible result; therefore, the subject claims are directed to statutory subject matter pursuant to 35 U.S.C. §101. Accordingly, this rejection should be withdrawn.

IV. Rejection of Claims 1, 3, and 101 Under 35 U.S.C. §102(b)

Claims 1, 3, and 101 stand rejected under 35 U.S.C. §102(b) as being anticipated by Linden *et al.* (US 6,266,649). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Linden *et al.* does not teach or suggest each and every limitation of appellants' claimed invention.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes *each and every* limitation set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the . . . claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The subject application relates to systems and methods for improved collaborative filtering, providing greater efficiency while utilizing a minimum amount of memory. Furthermore, appellants' claimed invention teaches the selection of an appropriate measure of association based on an input item set. In particular, independent claim 1 recites "...*a measure of association selection component that **selects, based on an item set containing at least one item of input data, an appropriate measure of association** from among known measures of association...*" (*emphasis added*). Independent claim 101 recites "...receiving an item set containing at least one item of input data; and **selecting, based on the item set, an appropriate measure of association** from among known measures of association..." (*emphasis added*)

Linden *et al.* does not teach or suggest the aforementioned novel features as recited in the subject claims. Rather, Linden *et al.* discloses a collaborative filtering system to predict interest in items based on data of past interest in the items. The system uses a fixed measure of association to generate recommendations based on correlations between items. The cited reference discloses choosing a measure of association based solely on its features, and discloses a preferred measure of association regardless of the item set. As new item sets are input, the cited reference uses the same measure of association to produce scores of the new item sets. The cited reference fails to disclose choosing the measure of association based on features of the input item set which is to be scored. Therefore, the cited reference fails to teach or suggest selecting, *based on an item set containing at least one item of input data, an appropriate measure of association*, as recited in independent claim 1, or *selecting, based on the item set, an appropriate measure of association*, as recited in independent claim 101.

Additionally, dependent claim 3 recites a *multiple-score collaborative filtering evaluation method utilizing a highest value score of scores applicable to an item as the single score*. When multiple scores apply to an item, the method used in dependent claim 3 would choose the highest of those values to use as the single score. Linden *et al.* does not teach or suggest using the highest value score as the single score when multiple scores apply. The Office Action cites column 11 from line 16, which discloses combining multiple scores "by merging the lists while summing the scores of like items." This method of combining multiple scores would add those scores together to obtain the single score, instead of choosing the highest value among the scores. Similarly, the Office Action cites column 15 from line 16, which merely discloses the same method of summing the multiple scores: "the scores of like items are summed."

In view of at least the above, it is respectfully submitted that Linden *et al.* does not teach or suggest applicants' invention as recited in independent claims 1 and 101 (and claim 3 which respectively depends there from) and thus fails to anticipate the subject claims. Accordingly, withdrawal of this rejection is respectfully requested.

VI. Rejection of Claims 2 and 4 Under 35 U.S.C. §103(a)

Claims 2 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Linden *et al.* (US 6,266,649) as applied under the §102(b) rejection of claim 1 and further in view of Bradley *et al.* (US 7,194,477). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Independent claim 1, upon which claims 2 and 4 depend, is believed to be allowable over Linden *et al.*, as asserted *supra*. Accordingly, this rejection should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP433US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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